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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,944	06/29/2001	Lawrence Bergman	YOR920010406US1	9336

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EXAMINER

MILEF, ELDA G

ART UNIT	PAPER NUMBER
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3692

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/895,944	BERGMAN ET AL.	
	Examiner	Art Unit	
	Elda Milef	3692	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 2 is objected to because of the following informalities: Line 2 "ate" should be -at--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 20, 33 were amended to recite "wherein said request comprises non-textual information". The arguments given by the applicant on p.17 of Remarks state that support for this amendment include that the request can comprise spectral bands, spatial texture and/or weather pattern(s), and ground moisture. These examples are representative of information goods not a request. The Examiner is confused as to what in fact is the request. Clarification is required.

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Claims 2-19, 21-32, 34-45 are rejected because of their dependency to the rejected claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-5, 10, 14-15, 18-22, 26, 30-35, 39, 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US PG. Pub. No. 2002/0026369) in view of Goldberg et al. (US Patent No. 6,985,885).

For purposes of examination, the Examiner is interpreting "wherein said request comprises non-textual information" to mean that the requested information good is a digital information good.

Re claims 1-5,14: Miller disclose:

collecting a request from a buyer for a requested good; analyzing the request to create additional information

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from the request ("receiving a request for information about an item, the request is parsed to determine attributes of the item such as functional attributes as well as physical attributes...")-see [0007];

collecting one or more offered goods from one or more sellers ("A search of a database is performed for selecting a plurality of products each having the attributes of the item.")-see [0008] and ("the present invention...comes up with the products that match and the product with all the locations to get the product from(multiple stores/sites, etc.)")-see [0009];

analyzing each of the offered goods to create additional information from the good("A search of a database is performed for selecting a plurality of products each having attributes of the item... Information about the products is retrieved and output.") [0007]; and

matching the request with at least one of the offered goods by matching and comparing the additional information from the request with the additional information from the at least one good and the step of selecting the ate [sic] least one offered good as a best match ("A system, method and article of manufacture are provided for matching products to a textual request.")-see [0007] and ("A matching algorithm of the present invention marries products together and provides products that

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have attributes that are most similar to the description input by the user.")-see [0009];

wherein the step of analyzing the request further comprises the step of analyzing the request to create annotations, and wherein the step of analyzing each of the one or more offered goods further comprises the step of analyzing each of the one or more offered goods to create annotations-see "attributes" [0007-0009]; wherein each of the annotations comprises model information-see "information about the products" [0008];

Although Miller does disclose an item or consumer good, see [0006], Miller does not specifically disclose information goods and digital goods. Goldberg however, teach a system and method for pricing and selling digital goods. -see cols. 3-4. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Miller to include digital goods as taught by Goldberg in order to provide the consumer with a varied array of products to purchase.

Re claim 10: Miller disclose:

wherein each of the offered goods has

a price associated with the good and wherein the step of matching further comprises dynamically determining prices of the offered goods.-see [0218]. Although Miller does disclose an

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item or consumer good, see [0006], Miller does not specifically disclose information goods. Goldberg however, teach a system and method for pricing and selling digital goods. -see cols. 3-4. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Miller to include digital goods as taught by Goldberg in order to provide the consumer with a varied array of products to purchase.

Re claim 15: For examination purposes, claim 15 will be interpreted as further comprising the step of matching the at least one offered information good and the requested information good. Claim 15 has similar limitations found in claim 1 above, therefore are rejected by the same rationale.

Re claim 18: Miller disclose the trading mechanisms consisting of fixed-price and auction -see[0008], [215-219], Miller do not specifically disclose price discrimination, and subscription. Goldberg, however teaches price discrimination-see col. 12 lines 27-41. Official notice is taken that it is old and well known in the art of e-commerce that subscription is a method of selling information goods such as online subscriptions to Consumer Report magazine. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Miller to include various pricing techniques, and subscription pricing as was taught by Goldberg

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and is old and well known in the art in order to give the sellers options in pricing goods that maximize the seller's profit potential.

Re claim 19: Miller do not disclose the step of decomposing an offering of one of the offered information goods, and wherein the step of matching further comprises the step of comparing decompositions of the one offered information good with the request and the additional information from the request. Goldberg however, teaches ("the vendor could capitalize on consumer price discrimination by offering a modified form of the goods which would be less appealing to consumers who place with utility value on the item, but which would still be appealing to consumers who place a low utility value on the item. For example, the vendor could create a version of the goods that did not include some of the features or functions valued by the high-end customers. The vendor could then hold separate auctions for each class of goods, setting a reserve price on the high-end version of the goods, the reserve price being greater than the utility values exhibited by the consumers of the low-end version. Thus, the use of a stable auction mechanism enables the vendor to accurately observe market distributions and to adapt in an optimal fashion.")-see col. 12 lines 27-41. It would have been obvious to one having

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ordinary skill in the art at the time the invention was made to modify Miller to include modifying products to create versions of the digital good that do not have all the components offered to high-end consumers as taught by Goldberg in order to attract consumers who would not want to pay the high price associated with the more expensive version of the good.

Re claims 20,21-22, 26, 30,31, 32: Further a system would have been necessary to perform the method of previously rejected claims 1, 4-5, 10, 14, 15, 19 respectively, and are therefore rejected using the same art and rationale.

Re claims 33, 34-35, 39, 43, 44, 45: Further an article of manufacture would have been necessary to perform the method of previously rejected claims 1, 4-5, 10, 14, 15, 19 respectively, and are therefore rejected using the same art and rationale.

Claims 6-9, 11-13, 16-17, 23-25, 27-29, 36-38, 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Goldberg as applied to claims 1, 20, and 33 above, and further in view of Haddawy (Haddawy, Peter. *An Overview of Some Recent Developments in Bayesian Problem-Solving Techniques*. AI Magazine. La Canada: Summer 1999, Vol. 20, Iss. 2; pg. 11, 9 pgs.)

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4. **Re claims 6, 7:** Miller and Goldberg do not specifically disclose wherein the step of analyzing the request further comprises the step of creating at least one inference from the request, and wherein the step of analyzing each of the one or more offered information goods further comprises the step of creating at least one inference from each the offered information goods; wherein each inference is created through deduction. Haddawy teaches ("The articles cover the topics of inference in Bayesian networks...Observations are continuously input into a Bayesian model and a probability distribution over user needs is inferred...The expectation-maximization algorithm iterates through two steps:...Any Bayesian network inference algorithm can be used...")-see p.1 par. 1- p. 6 par. 4.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Miller and Goldberg to include analyzing data using the inference techniques taught by Haddawy in order to facilitate the analysis of data to provide the user with an appropriate course of action that will maximize utility.

Re claims 8,9: Miller and Goldberg do not disclose wherein the step of analyzing the request further comprises the step of accessing at least one request knowledge model, and wherein the step of analyzing each of the offered information

goods further comprises the step of accessing at least one offered knowledge model. Haddawy teaches knowledge based model construction using Bayesian networks-see pp. 1-5. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Miller and Goldberg to include using a knowledge based model such as Bayesian networks as taught by Haddawy in order to facilitate the analysis of data to provide the user with an appropriate course of action that will maximize utility.

Re claim 11, 13: Although Miller do disclose dynamically determining prices in [218], Miller and Goldberg do not specifically disclose creating an influence diagram comprising node and arc, each arc connecting one node with another node; and dynamically determining prices comprises the step of maximizing utility. Haddawy however, teaches ("Influence diagrams (Howard and Matheson 1984) are a generalization of Bayesian networks for analyzing courses of action. In addition to chance nodes, they contain decision and value nodes...")-see p. 2 para, 3 and ("The optimal act is the one that maximizes expected utility...")-see p. 1 para. 3. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Miller and Goldberg to include using an influence diagram to analyze a course of action as

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taught by Haddawy in order to maximize expected profits for the seller and maximize utility for the buyer and seller.

Re claim 12: Although Miller and Goldberg disclose the step of dynamically determining prices, Miller and Goldberg, do not specifically disclose the step of updating expectations and probabilities through Bayesian updating selecting from a group consisting of linear Bayes updating and updating with decisions. Haddawy however, teaches ("Influence diagrams (Howard and Matheson 1984) are a generalization of Bayesian networks for analyzing courses of action. In addition to chance nodes, they contain decision and value nodes. They share all the benefits of Bayesian networks."). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Miller and Goldberg to include using Bayesian networks for analyzing courses of action and determining probability of random variables as taught by Haddawy in order to maximize expected profits for the seller and maximize utility for the buyer.

Re claim 16: Miller and Goldberg disclose the steps of analyzing the request and the step of analyzing each of the offered information goods in claims 4 and 5 above, and matching comprises comparing the request, annotations and offered information goods and annotations -see Miller [0007-0009] :

Haddawy further discloses using inference in Bayesian networks to determine an optimal act that maximizes expected utility. Haddawy teaches inference techniques to analyze data in order to aid in decision making-see pp. 1-6. It would be obvious to use the inference techniques in Bayesian networks to infer a user's goals and needs as taught by Haddawy in order to maximize profit for seller and to minimize cost for the buyer. It would have been obvious to one having ordinary skill at the time the invention was made to include inference techniques to analyze data as taught by Haddawy in order to maximize utility for both the buyer and seller.

Re claim 17 has similar limitations found in claim 7 above, therefore is rejected by the same rationale.

Re claim 23-25, 27-29: Further a system would have been necessary to perform the method of previously rejected claims 6-8, 11-13 and are therefore rejected using the same art and rationale.

Re claim 36-38, 40-42: Further an article of manufacture would have been necessary to perform the method of previously rejected claims 6-8, 11-13 and are therefore rejected using the same art and rationale.

Response to Arguments

5. Applicant's arguments with respect to claims 1, 20, 33 have been considered but are moot in view of the new ground(s) of rejection.

The applicant's amendment of claims 1, 20, 33 required a new grounds of rejection 35 USC §112.

Applicant's arguments with respect to claims 1, 20 and 33 have been fully considered but they are not persuasive. The Haddaway referenced is used in the office action in combination with Miller and Goldberg.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened

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statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

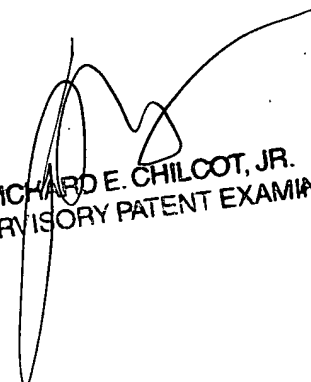
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elda Milef whose telephone number is (571)272-8124. The examiner can normally be reached on Monday -Thursday 8:30 am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571)272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Elda Milef
Examiner
Art Unit 3692



RICHARD E. CHILCOT, JR.
SUPERVISORY PATENT EXAMINER